

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for manufacturing a parallel multi-layer printed circuit board, comprising the steps of:

- (A) forming a predetermined number of circuit layers, including the sub-steps of:
 - (a) forming via holes through a copper stack plate;
 - (b) plating surfaces of the copper stack plate and inner walls of the via holes with copper; and
 - (c) forming circuit patterns on the copper stack plate;
- (B) forming a predetermined number of insulating layers, including the sub-steps of:
 - (a) forming via holes through a flat-type insulating material provided with release films attached to surfaces of the flat-type insulating material;
 - (b) filling the via holes with a conductive paste; and
 - (c) removing the release films from the flat-type insulating material;
- (C) alternately arranging the circuit layers and the insulating layers at predetermined positions;
- (D) ~~pressing the arranged circuit and insulating layers~~ connecting the insulating layers to the circuit layers, wherein the conductive paste filling the via holes of the insulating layers flows into the via holes of the circuit layers by pressing the arranged circuit and insulating layers; and
- (E) forming circuit patterns on the outermost layers of a board obtained by pressing the circuit layers and the insulating layers.

2. (Original) The method as set forth in claim 1,
wherein in the sub-step (c) of the step (A), a circuit pattern is formed on one surface of the copper stack plate so as to form the circuit layer arranged on an outermost layer of the printed

circuit board, and circuit patterns are formed on both surfaces of the copper stack plate so as to form the circuit layer arranged on an internal layer of the printed circuit board.

3. (Original) The method as set forth in claim 1, wherein the step (A) further includes the sub-step of:

(d) surface-treating the copper stack plate.

4. (Original) The method as set forth in claim 1, further comprising the step of:

(F) forming a target hole at the position of a target guide mark, serving as a reference point of drilling, on the circuit layers and the insulating layers.

5. (Original) The method as set forth in claim 1, wherein the sub-step (a) of each of the steps (A) and (B) includes the step of:

(a) forming a guide hole at the same position, serving as a reference point of interlayer matching, on the circuit layers and the insulating layers.

6. (Previously presented) The method as set forth in claim 1, further comprising the step of:

(D') buffing a portion of the conductive paste, flowing out from the via holes of the outermost layers, so as to remove the protruding portion of the conductive paste, after the step (D).

7. (Original) The method as set forth in claim 1,
wherein the release film has a thickness of 20 μm to 50 μm .

8. (Original) The method as set forth in claim 1,
wherein the conductive paste is a metallic bond-type conductive paste impregnated with a tin (Sn) component.

9. (Original) The method as set forth in claim 1,
wherein the conductive paste is a point contact-type conductive paste.

10. (Original) The method as set forth in claim 1,
wherein the flat-type insulating material includes a resin material in a c-stage, and resin
layers in a b-stage respectively stacked on both surfaces of the resin material.

11-13. (Canceled)

14. (Previously presented) A method for manufacturing a parallel multi-layer printed
circuit board, comprising the steps of:

- (A) forming a predetermined number of circuit layers, including the sub-steps of:
 - (a) forming via holes through a copper stack plate;
 - (b) plating surfaces of the copper stack plate and inner walls of the via holes
with copper; and
 - (c) forming circuit patterns on the copper stack plate;
- (B) forming a predetermined number of insulating layers, including the sub-steps of:
 - (a) forming via holes through a flat-type insulating material provided with
release films attached to surfaces of the flat-type insulating material;
 - (b) filling the via holes with a conductive paste; and
 - (c) removing the release films from the flat-type insulating material;
- (C) alternately arranging the circuit layers and the insulating layers at predetermined
positions;
- (D) pressing the arranged circuit and insulating layers and filling via holes in the
circuit layers with conductive paste from the insulating layers; and
- (E) thereafter, forming circuit patterns on the outermost layers of a board obtained by
pressing the circuit layers and the insulating layers.

15. (Previously presented) A method for manufacturing a parallel multi-layer printed
circuit board, comprising the steps of:

- (A) forming a predetermined number of circuit layers, including the sub-steps of:
 - (a) forming via holes through a copper stack plate;
 - (b) plating surfaces of the copper stack plate and inner walls of the via holes with copper without completely filling the via holes; and
 - (c) forming circuit patterns on the copper stack plate;
- (B) forming a predetermined number of insulating layers, including the sub-steps of:
 - (a) forming via holes through a flat-type insulating material provided with release films attached to surfaces of the flat-type insulating material;
 - (b) filling the via holes with a conductive paste; and
 - (c) removing the release films from the flat-type insulating material;
- (C) alternately arranging the circuit layers and the insulating layers at predetermined positions;
- (D) pressing the arranged circuit and insulating layers; and
- (E) thereafter, forming circuit patterns on the outermost layers of a board obtained by pressing the circuit layers and the insulating layers.

16. (Previously presented) A method for manufacturing a parallel multi-layer printed circuit board, comprising:

- (A) forming a plurality of circuit layers, wherein the circuit layers comprise via holes;
- (B) forming a plurality of insulating layers, wherein the insulating layers comprise via holes filled with a conductive paste;
- (C) alternately arranging the circuit layers and insulating layers; and
- (D) pressing the circuit layers and insulating layers and filling the via holes of the circuit layers with the conductive paste from the via holes of the insulating layers to electrically connect the insulating layers with the circuit layers.

17. (Previously presented) The method of claim 16, wherein the via holes of the circuit layers are not filled with plating or with conductive paste before pressing.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100